

REMARKS

In this reply, claims 1, 6, 20, 21, 25, and 26 have been amended. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the amendments and the following remarks.

Interview Summary

Assignee appreciates the interview between Examiner Parra and Blake Jansen on January 25, 2011. During the interview the claims were discuss in relation to the Prus reference. Assignee requests that the Examiner please call the undersigned with any remaining questions.

35 U.S.C. § 103 Rejection

Claims 1, 2, 4-6, 8-10, 12-22, 24-27, and 29-36 were rejected under § 103(a) over U.S. Patent No. 6,445,907 to Middeke in view of U.S. Patent No. 7,069,578 to Prus and further in view of U.S. Patent Publication No. 6,546,419 to Humpleman.

Claim 1 recites that if the first diagnostic agent is not functional, uploading a second diagnostic agent to the media distribution device, in response to a determination that the first diagnostic agent is not functional, and removing the first diagnostic agent from the media distribution device. The Office acknowledges that Middeke does not explicitly teach “removing the 1st diagnostic agent” and “uploading a second diagnostic agent to the media distribution device in response to a determination that the first diagnostic agent is not functional.” *Office Action*, p. 4. However, the Office asserts that Prus discloses:

a program code (bootloader) that checks its own integrity and if functional, checks the operating system's integrity and if it is not function, the bootloader code will report the status of the settop box and downloads a newer version of the operating system, after receiving a headend instruction (Abstract; col. 4 lines 35-67; col. 6 lines 53-67). In addition, if there exists another version of the bootloader in the smart card, it is temporarily stored (in other words, removed after received; col. 3 line 56-col. 4 line 6;) in the DRAM and then to the flash drive to avoid the case of a ‘serious anomaly or bug in the bootloader code’.

Office Action, p. 4.

Assignee respectfully disagrees. The portion of Prus cited by the Office discloses actions taken when a new operating system is downloaded:

FIG. 2 is a block diagram illustrating the layout of the contents of the flash memory 200 (in which the bootloader of the preferred embodiment of the invention is located) and DRAM 250 of FIG. 1, while the DRAM 250 is used during a download operation. The DRAM 250 in FIG. 2 is illustrated as it is configured during the download of operating system/control program software from the head end 101 (FIG. 1). DRAM 250 includes a number of different portions. For example, portion 251 includes variables, portion 252 includes packet buffers, portion 254 includes control structures for the downloaded software, and portion 256 is the image collection buffer in which an image (copy) of the downloaded software is temporarily stored before transfer to flash memory 200. The image collection buffer 256 is the portion of DRAM 250 in which downloaded software is temporarily stored. The program image of the downloaded software is then transferred from DRAM 250 via connection 202 to flash memory 200.

Prus, col. 3, line 56–col. 4 line 6.

Thus, the bootloader checks a set-top box, such as the operating system/control program software. If an error is found in the operating system/control program software, the bootloader downloads and installs a new operating system/control program software. Prus also discloses that the bootloader may correct a bug in the bootloader by executing control program software:

the bootloader 300 executes the newly acquired control program software instead of the remainder of the bootloader code. This aspect of the invention provides the method to correct the situation in which there is a serious anomaly, or bug, in the bootloader code.

Prus, col. 6, lines 14–18.

Therefore, newly acquired control program software may be executed instead of the remainder of the bootloader, but Prus does not disclose that the current bootloader removed and replaced with a new bootloader in response to determining that the bootloader is not functional. However, Prus discloses reporting failures of the bootloader via light emitting diodes (LEDs):

The bootloader 300 checks its own integrity by running a cyclical redundancy check (CRC) on itself and will report any failures via light emitting diodes (LEDs) on front panel display 121 of settop receiver 150 (FIG. 1).

Prus, Col. 4, lines 35-38.

Thus, *Prus* discloses reporting failures of the bootloader via LEDs, not removing the bootloader in response to failures of the bootloader. *Humpleman* fails to overcome the deficiencies of *Prus*. Therefore, *Middeke* in view of *Prus*, and further in view of *Humpleman* fails to disclose that if the first diagnostic agent is not functional, uploading a second diagnostic agent to the media distribution device, in response to a determination that the first diagnostic agent is not functional, and removing the first diagnostic agent from the media distribution device. Claim 1 is therefore allowable, as are claims 2, 4, 5, and 34-36 that depend from claim 1.

Independent claims 6 and 26 have been amended to recite that the first intelligent diagnostic agent receives a first command to enter an identification of the media distribution device in a service log for a subsequent arrangement for an on-site technical service call. *Middeke* discloses a microprocessor gathering diagnostic information associated with a satellite receiver, but not that the microprocessor within the satellite receiver gathers diagnostic information associated with any other devices. *Prus* discloses a cable television settop receiver and method that includes a software component and a frequency acquisition method for determining the ability of the operating system/control program in the settop receiver to operate the settop receiver. *Humpleman* discloses a method and system for performing a service on a home network having a plurality of home devices connected thereto. However, *Middeke* in view of *Prus*, and further in view of *Humpleman* fails to disclose that the first intelligent diagnostic agent receives a first command to enter an identification of the media distribution device in a service log for a subsequent arrangement for an on-site technical service call. Claims 6 and 26 are therefore allowable, as are claims 8-10, 12-19, 27, and 29-33 that depend from claim 6 or 26.

Independent claim 20 has been amended to recite a first intelligent diagnostic agent residing in the media distribution device and operative to collect diagnostic data associated with the media distribution device and diagnostic data associated with a second device not physically connected to the media distribution device, and to transmit the diagnostic data to the diagnostic

service center during off-peak hours of operation for the media distribution device. Middeke discloses a microprocessor gathering diagnostic information associated with a satellite receiver, but not that the microprocessor within the satellite receiver gathers diagnostic information associated with any other devices. Prus discloses a cable television settop receiver and method that includes a software component and a frequency acquisition method for determining the ability of the operating system/control program in the settop receiver to operate the settop receiver. Humpleman discloses a method and system for performing a service on a home network having a plurality of home devices connected thereto. However, Middeke in view of Prus, and further in view of Humpleman fails to disclose a first intelligent diagnostic agent residing in the media distribution device and operative to collect diagnostic data associated with the media distribution device and diagnostic data associated with a second device not physically connected to the media distribution device, and to transmit the diagnostic data to the diagnostic service center during off-peak hours of operation for the media distribution device. Claim 20 is therefore allowable.

Independent claim 21 recites control logic comprising computer-readable program code for causing the computer to upload a second diagnostic agent to the media distribution device, in response to a determination that the first diagnostic agent is not functional, and remove the first diagnostic agent from the media distribution device if the first diagnostic agent is not functional. As explained above with respect to claim 1, Middeke in view of Prus, and further in view of Humpleman fails to disclose these features. Claim 21 is therefore allowable, as are claims 22 and 24 that depend from claim 21.

Independent claim 25 has been amended to recite that the intelligent diagnostic agent is uploaded to the media distribution device in response to detecting a performance problem and wherein the intelligent diagnostic agent receives a command to perform at least one of upgrading an operating system in the media distribution device during off-peak hours of operation for the media distribution device. Middeke discloses a microprocessor gathering diagnostic information associated with a satellite receiver, but not that the microprocessor within the satellite receiver gathers diagnostic information associated with any other devices. Prus discloses a cable television settop receiver and method that includes a software component and a frequency acquisition method for determining the ability of the operating system/control program in the

settop receiver to operate the settop receiver. Humpleman discloses a method and system for performing a service on a home network having a plurality of home devices connected thereto. However, Middeke in view of Prus, and further in view of Humpleman fails to disclose that the intelligent diagnostic agent is uploaded to the media distribution device in response to detecting a performance problem and wherein the intelligent diagnostic agent receives a command to perform at least one of upgrading an operating system in the media distribution device during off-peak hours of operation for the media distribution device. Claim 25 is therefore allowable.

CONCLUSION

This application is believed to be in condition for allowance, and such action is respectfully requested. The Examiner is invited to telephone the undersigned with any further questions. Assignee does not believe that additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

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01/25/2011
Date